GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:558
ANSWERED ON:19.07.2017
Construction of New PHWR
Chandrakasi Shri M.

Will the Minister of ATOMIC ENERGY be pleased to state:

(a)whether the Government has approved the construction of ten new nuclear reactors by employing indigenous technologies across the country and if so, the details thereof including the places identified for such construction along with the details of the proposed technologies;

(b)the estimated fiscal implications for undertaking such construction along with the targeted power proposed to be generated by the aforementioned projects, State/UT-wise and the nuclear power generated at present across the country, Reactor-wise and State/UT-wise;

(c)the time by which the said projects are likely to be operational;

(d)whether the proposed indigenous technologies meet the globally accepted highest standards of safety, efficiency and other parameters and if so, the details thereof; and

(e)whether the nuclear fuels and other materials required for the said projects are proposed to be sourced indigenously; if so, the details in this regard and if not, the reasons therefor ?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH):

(a)Yes, Sir. The government has accorded administrative approval and financial sanction for construction of 10 indigenous 700 MW Pressurized Heavy Water Reactors (PHWRs) in fleet mode. The reactors are planned at Kaiga, Karnataka (Kaiga-5&6), Gorakhpur, Haryana (GHAVP-3&4), Chutka, Madhya Pradesh (Chutka-1&2) and Mahi Banswara, Rajasthan (Units-1 to 4).

(b)The total cost of setting up the ten reactors is estimated at Rs.1,05,000 crore at constant price level (excluding Escalation and Interest during Construction). The details of power to be generated by these projects, State/UT -wise would be as follows:

State Project Capacity (MW)

Karnataka Kaiga 5&6 2 X 700
Haryana GHAVP 3&4 2 X 700
Madhya Pradesh Chutka 1&2 2 X 700
Rajasthan Mahi Banswara 1 to 4 4 X 700

However, as nuclear power projects are in the central sector, power generated by them would be allocated to the beneficiary States/ UTs in the Electricity Region by the Ministry of Power as per the extant guidelines.

The details of the present installed nuclear power capacity in the country, State/UT wise and reactor-wise are enclosed as Annexure.

(c)The ten reactors are scheduled to be progressively completed by the year 2031.

(d)Yes, Sir. The nuclear power reactors have a combination of advanced active and passive (not requiring motive power or operator action) safety features. Some of the features include Containment Spray System, Passive Decay Heat Removal System, Double Containment with Steel Lined Inner Containment etc.

(e)The materials / components / equipment required for setting up these projects will be sourced indigenously. In respect of fuel, a decision on using indigenous or imported fuel in respect of each project would be taken by the Government at an appropriate time.

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Annexure

Annexure referred to in reply to Part (b) of Lok Sabha Unstarred Question No. 558 for answer on 19/07/2017
Operational Nuclear Power Plants in the country

State	Location	Units	Capacity (MW)
Maharashtra	Tarapur	TAPS-1	160
		TAPS-2	160
		TAPS-3	540
		TAPS-4	540
Rajasthan	Rawatbhata	RAPS-1*	100
		RAPS-2	200
		RAPS-3	220
		RAPS-4	220
		RAPS-5	220
		RAPS-6	220
Tamil Nadu	Kalpakkam	MAPS-1	220
		MAPS-2	220
	Kudankulam	KKNPP-1	1000
		KKNPP-2	1000
Uttar Pradesh	Narora	NAPS-1	220
		NAPS-2	220
Gujarat	Kakrapar	KAPS-1#	220
		KAPS-2#	220
Karnataka	Kaiga	KGS-1	220
		KGS-2	220
		KGS-3	220
		KGS-4	220

*Under extended shutdown for techno-economic assessment for continued operation.

Presently the units are under long shutdown for Enmasse Coolant Channel Replacement (EMCCR) and Enmasse Feeder Replacement (EMFR)